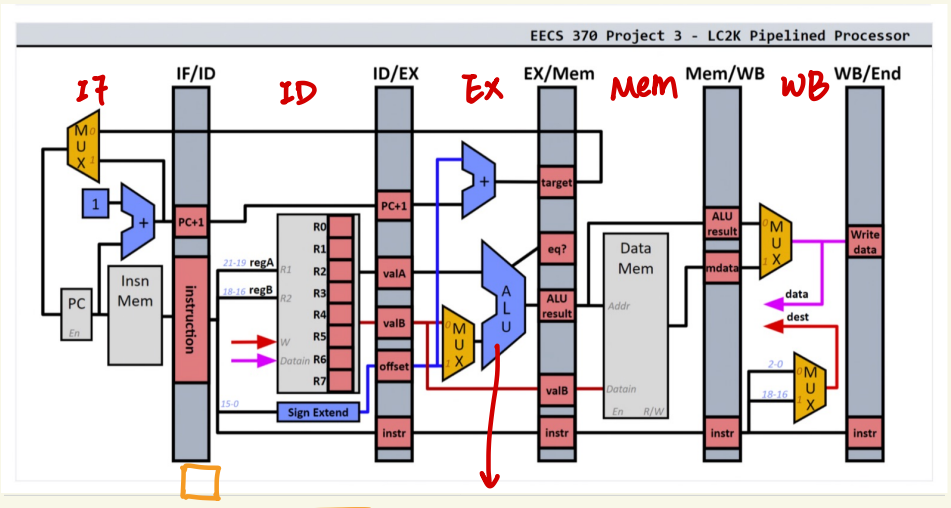


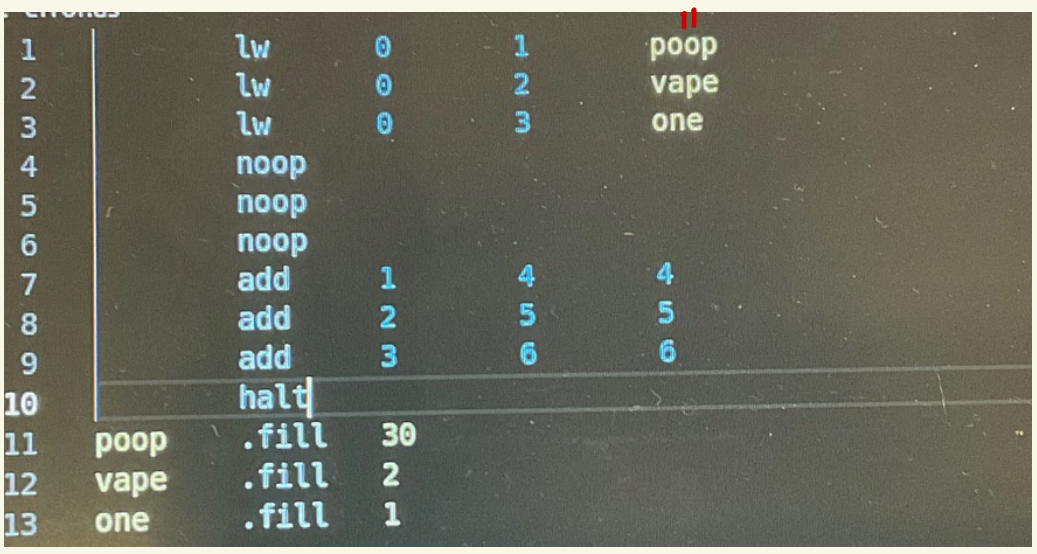
I7 ID Ex Mem WB

ADD/NOR regA + regB.

lw/sw regA + offset.

Halt 0

Noop 0



```
1       lw      0       1       poop
2       lw      0       2       vape
3       lw      0       3       one
4       noop
5       noop
6       noop
7       add     1       4       4
8       add     2       5       5
9       add     3       6       6
10      halt
11  poop    .fill   30
12  vape    .fill   2
13  one     .fill   1
```

no gap ① ADD/NOR
- 1) 接 ADD/NOR
- 2) 接 lw/sw.
- 3) 接 beq

② lw

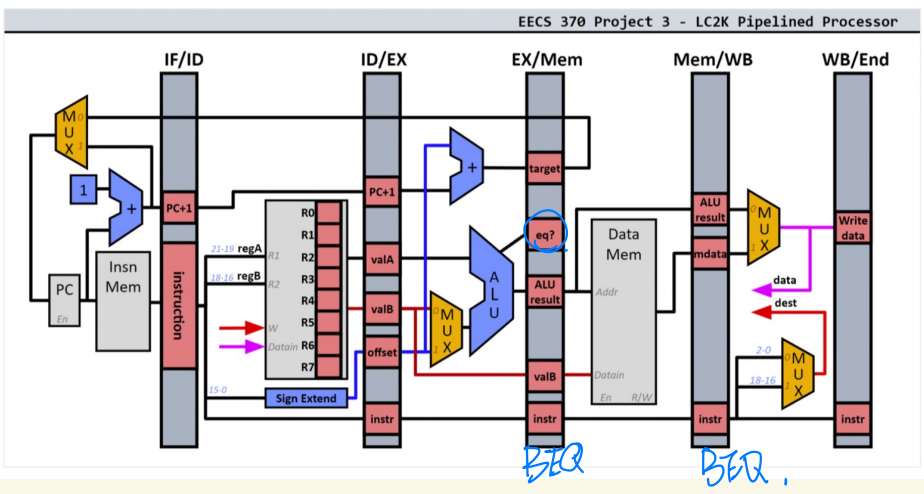
one gap ① ADD/Nor

② lw.

two gap ① ADD/Nor

② lw.

Control Hazard.



if (state.instr.eq = 1 & opcode(state.instr) == BEQ).

NewState.PC = Branch-target.

Newstate. IFID / IDEX / EXMEM = noop